

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1, 3, 5, 7 and 10 in have been amended. Claims 2, 6, 9, 17 and 19 have been cancelled. Claims 1, 3-5, 7, 8, 10-16, 18, 20 and 21 are pending and under consideration.

CLAIM REJECTIONS

Claims 1-21 were rejected under 35 U.S.C. 102(b) as being anticipated by Kuroda et al. (US 6,144,625) (hereinafter "Kuroda").

Kuroda discusses an optical disc discriminating system. In Kuroda, a band pass filter 12 is adapted to remove noise components contained in the push-pull error signal fed from the regenerative amplifier 7, so as to produce a composite signal S_{PC} which is then supplied to the prepit signal detector 13 and the wobble signal extractor 15. Kuroda, 8:6-8:10 and Figure 1.

Claims 1-4

Amended claim 1 recites: "...wherein the LPP signal detector detects the LPP signal by slicing push-pull signals output from the RF amplifier at a constant level." Support for this amendment may be found in at least original claim 2. In contrast to claim 1, Kuroda does not discuss slicing push pull signals from the RF amplifier. In Kuroda, a band pass filter 12 removes noise components contained in the push-pull error signal fed from the regenerative amplifier 7. The signal output from the band pass filter 12, composite signal S_{PC} is then supplied to the prepit signal detector 13 and the wobble signal extractor 15. If the optical disc D to be discriminated is a DVD-R, the signal S_{PC} will be an overlapped signal. If the optical disc is a DVD-RAM, a pulse signal caused due to preprints and a wobble signal from the groove tracks, will be intermittently generated alternatively and periodically. As such, the prepit signal detector 13 includes a comparator adapted to compare the composite signal S_{PC} with a predetermined reference value, capable of extracting from the composite signal S_{PC} a pulse signal generated due to preprints formed on a DVD-R or a DVD-RAM, producing a prepit detection signal S_{PD} to be fed to the CPU 9 and the prepit signal decoder 14. Claim 1 recites that the push-pull signal is sliced at a constant level, and as such only the required LPP are obtained. In claim 1, the result of the detection by the LPP detector (corresponding to the prepit signal detector 13 of Kuroda) is

provided to the system controller. In Kuroda, the prepit signal detector 13 does not detect the LPP signal by slicing push-pull signals output from the amplifier as is recited in claim 1.

Claim 2 has been cancelled. Claims 3 and 4 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

Claims 5-8

Amended claim 5 recites: "...wherein the detecting the LPP signal includes detecting the LPP signal by slicing push-pull signals at a constant level." Support for this amendment may be found in at least original claim 6. In contrast to claim 5, Kuroda does not discuss slicing push pull signals. In Kuroda, a band pass filter 12 removes noise components contained in the push-pull error signal fed from the regenerative amplifier 7. The signal output from the band pass filter 12, composite signal S_{PC} is then supplied to the prepit signal detector 13 and the wobble signal extractor 15. If the optical disc D to be discriminated is a DVD-R, the signal S_{PC} will be an overlapped signal. If the optical disc is a DVD-RAM, a pulse signal caused due to prepits and a wobble signal from the groove tracks, will be intermittently generated alternatively and periodically. As such, the prepit signal detector 13 includes a comparator adapted to compare the composite signal S_{PC} with a predetermined reference value, capable of extracting from the composite signal S_{PC} a pulse signal generated due to prepits formed on a DVD-R or a DVD-RAM, producing a prepit detection signal S_{PD} to be fed to the CPU 9 and the prepit signal decoder 14. Claim 5 recites that the push-pull signal is sliced at a constant level, and as such only the required LPP are obtained. In claim 5, the result of the detection by the LPP detector (corresponding to the prepit signal detector 13 of Kuroda) is provided to the system controller. In Kuroda, the prepit signal detector 13 does not detect the LPP signal by slicing push-pull signals output from the amplifier as is recited in claim 5.

Claim 6 has been cancelled. Claims 7 and 8 depend on claim 5 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

Claim 9

Claim 9 has been cancelled.

Claims 10-18

Amended claim 10 recites: "...the LPP detector detects an LPP signal according to detection of the certain voltage level by slicing the push-pull signal at a constant level." Support for this amendment may be found in at least original claim 17. In contrast to claim 10, Kuroda does not discuss slicing the push pull signal. In Kuroda, a band pass filter 12 removes noise components contained in the push-pull error signal fed from the regenerative amplifier 7. The signal output from the band pass filter 12, composite signal S_{PC} is then supplied to the prepit signal detector 13 and the wobble signal extractor 15. If the optical disc D to be discriminated is a DVD-R, the signal S_{PC} will be an overlapped signal. If the optical disc is a DVD-RAM, a pulse signal caused due to prepirits and a wobble signal from the groove tracks, will be intermittently generated alternatively and periodically. As such, the prepit signal detector 13 includes a comparator adapted to compare the composite signal S_{PC} with a predetermined reference value, capable of extracting from the composite signal S_{PC} a pulse signal generated due to prepirits formed on a DVD-R or a DVD-RAM, producing a prepit detection signal S_{PD} to be fed to the CPU 9 and the prepit signal decoder 14. Claim 10 recites that the push-pull signal is sliced at a constant level, and as such only the required LPP are obtained. In claim 10, the result of the detection by the LPP detector (corresponding to the prepit signal detector 13 of Kuroda) is provided to the system controller. In Kuroda, the prepit signal detector 13 does not detect the LPP signal by slicing push-pull signals output from the amplifier as is recited in claim 10.

Claim 17 has been cancelled. Claims 11-16 and 18 depend on claim 10 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

Claim 19

Claim 19 has been cancelled.

Claim 20 and 21

Claim 20 recites: "...detecting an LPP signal by slicing the push-pull signal; wherein the disc is identified as a first DVD type disc if the LPP signal is detected and the disc is identified as a second DVD type disc if the LPP signal is not detected." In contrast to claim 20, Kuroda does not discuss slicing the push pull signal. In Kuroda, a band pass filter 12 removes noise components contained in the push-pull error signal fed from the regenerative amplifier 7. The signal output from the band pass filter 12, composite signal S_{PC} is then supplied to the prepit

signal detector 13 and the wobble signal extractor 15. If the optical disc D to be discriminated is a DVD-R, the signal S_{PC} will be an overlapped signal. If the optical disc is a DVD-RAM, a pulse signal caused due to preprints and a wobble signal from the groove tracks, will be intermittently generated alternatively and periodically. As such, the preprint signal detector 13 includes a comparator adapted to compare the composite signal S_{PC} with a predetermined reference value, capable of extracting from the composite signal S_{PC} a pulse signal generated due to preprints formed on a DVD-R or a DVD-RAM, producing a preprint detection signal S_{PD} to be fed to the CPU 9 and the preprint signal decoder 14. Claim 20 recites that the LPP signal is detected by slicing the push-pull signal, and as such only the required LPP are obtained. In claim 20, the result of the detection by the LPP detector (corresponding to the preprint signal detector 13 of Kuroda) determines the DVD type. In Kuroda, the preprint signal detector 13 does not detect a useable LPP signal by slicing push-pull signals as is recited in claim 20.

Claim 21 depends on claim 20 and is therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
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